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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,542	12/19/2005	Toyokazu Mori	050793	9383
23850 7590 09/16/2011 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. 4th Floor WASHINGTON, DC 20005				
EXAMINER				
CHIN, RANDALL E				
ART UNIT		PAPER NUMBER		
3723				
MAIL DATE		DELIVERY MODE		
09/16/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/561,542

## Applicant(s)

MORI ET AL.

## Examiner

Randall Chin

## Art Unit

3723

**Period for Reply**  
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 5) ☒ Claim(s) 1, 7 and 8 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1, 7 and 8 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-550)  
Paper No(s)/Mail Date 08162011
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chan et al. 2003/0084528 (hereinafter Chan).

As for claim 1, Chan discloses an electric toothbrush in Figs. 1-3, for example, comprising a replaceable brush (paragraphs [0034] and [0040]) having “a single head” merely defined by second bristle holder itself 38 and a “single tufted portion” (merely defined by the bristles thereon) formed in the head 38, said tufted portion having a plurality of tufted filaments (Figs. 1-3), wherein brushing is enabled by back-and-forth linear movement of the entire tufted portion (i.e., considering just the second bristle holder 38 itself) in only a longitudinal direction of the replaceable brush (paragraph [0039]), the stroke or distance (mm) of movement of the tufted portion 38 is set in the range of 0.5 – 3 mm (paragraph [0057]), the cycle or frequency (times) of back-and-forth motion of the tufted portion 38 per minute is set in the range of 2000 - 11,000

(paragraph [0056]), and it would thus appear that the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute would be in the range of 5000 – 7000. Given such a teaching by Chan (e.g., the **wide** range of "2000 - 11,000"), even assuming arguendo that the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute were not in the range of 5000 – 7000, through known optimization techniques, it would have been obvious to one of ordinary skill in the art to have simply modified the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute to be in the range of 5000 – 7000 in order to optimally or more effectively remove plaque.

It will be added that with regards to the amended language of "a single head" and "a single tufted portion" in claim 1, lines 2-3, it is still true that the second bristle holder 38 of Chan still defines "a" single head and "a" single tufted portion. The claim **never** recites that the electric toothbrush comprises **only** a single head and **only** a single tufted portion formed in the head and thus has not been construed as such. Any asserted "combination" of Chan is still not precluded by the explicit language used for amended claim 1. In other words, the fact that Chan may disclose more is not precluded the exact language of claim 1.

As for claim 8, a DC electric motor is used as means for moving said tufted portion 38 (paragraph [0038]).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Gleason et al. 6,496,999 (hereinafter Gleason).

Chan already discloses filaments being combined to form tufted filaments and the tufted filaments are arranged to form the tufted portion (Figs. 1-3). Chan discloses all of the recited subject matter as set forth above with the exception of filaments in which tip portions of at least 30% or more of all the filaments in the tufted filaments are split into a plurality of portions. The patent to Gleason teaches in Figs. 6 and 10, for example, the concept of filaments in a toothbrush in which tip portions 54 of filaments in the tufted filaments are split into a plurality of portions. It would have been obvious to one of ordinary skill in the art to have modified Chan such that tip portions of "at least 30% or more of all the filaments" (which can be all the bristles) in the tufted filaments are split into a plurality of portions as taught by Gleason for the purpose of improving plaque removal (col. 4, lines 31-53 and col. 5, lines 12-25).

***Conclusion***

5. Applicant's arguments with respect to claims 1, 7 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments are deemed adequately addressed and explained by the above art rejections. It will be added that Applicant's arguments that it is not easy to achieve the present invention by reading Chan and that the distance of movement of the tufted portion is so large that a gum of a patient with gingivitis may be injured is noted but merely deemed speculative attorney's argument unsupported by objective technical evidence on the record. Arguments of counsel cannot take the place of evidence in the record. The Examiner maintains that through known optimization techniques, it still would have been obvious to one of ordinary skill in the art to have simply modified the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute to be in the range of 5000 – 7000 in order to optimally or more effectively remove plaque, even if not already taught by Chan.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571)272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/  
Primary Examiner, Art Unit 3723

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